

Attorney Docket No. 7175-74151

Application No. 10/657,728 (Filed September 8, 2003)

Reply to Office Action dated March 6, 2007

AMENDMENTS TO THE CLAIMS

The listing of the claims will replace all prior versions, and listings of claims in the application.

Listing of Claims:

1.(Currently amended) A vest to apply pneumatic pressure delivered by a hose to a chest of a patient, the vest comprising:

a flexible belt including an inflatable bladder; and

a connector for connection between an the inflatable bladder and a the hose, the connector comprising: comprising an elastic sheet forming a portion of a wall of the inflatable bladder; and a first slot within the sheet that extends in a direction generally perpendicular to a longitudinal dimension of the belt and that is dimensioned to form an airtight seal around an outer surface of the hose, the elastic sheet having a generally flat configuration along a plane defined by the belt prior to insertion of the hose through the slot, and the elastic sheet being deformable to allow the hose to be inserted through the slot in a direction generally parallel to the plane defined by the belt and generally perpendicular to a longitudinal dimension of the slot sheet in the flat configuration.

2.(Original) The connector of claim 1 wherein the slot further comprises: a first hole at a first end of the slot; a second hole at a second end of the slot; a first flap on a first side of the slot; a second flap on a second side of the slot; and wherein the holes and flaps stretch to form the continuous airtight seal.

3.(Original) The connector of claim 1 and further comprising: a first finger grip.

4.(Original) The connector of claim 1 and further comprising: a second slot; and a second finger grip.

5.(Original) The connector of claim 1 wherein the elastic sheet is heat sterilizable.

6.(Original) The connector of claim 1 wherein the elastic sheet shows no image upon being x-rayed.

7.(Currently amended) A vest to apply pneumatic pressure delivered by a hose to a chest of a patient, the vest comprising:

a flexible belt having a generally flat configuration and including an inflatable bladder, the bladder having a generally flat configuration when deflated; and

a connector for connection between an the inflatable bladder and a the hose, the connector comprising: comprising a thermoplastic elastomer sheet having a durometer hardness rating that provides limited durability to the connector; a slot within the thermoplastic elastomer sheet that extends in a direction generally perpendicular to a longitudinal dimension of the belt and that is dimensioned to form an airtight seal between the inflatable bladder and the hose, the slot further comprising: comprising a slit; holes at ends of the slit; tabs at intersections between the slit and the holes; and wherein no leakage occurs around the holes, because the holes have a diameter that allows the tabs to recede when the slot is stretched open by the hose; the thermoplastic elastomer sheet having a generally flat configuration along a plane defined by the belt prior to insertion of the hose through the slot, and the thermoplastic elastomer sheet being deformable to allow the hose to be inserted through the slot in a direction generally parallel to the plane defined by the belt and generally perpendicular to a longitudinal dimension of the slot
~~thermoplastic elastomer sheet in the flat configuration.~~

8.(Original) The connector of claim 7 wherein the hose is about 1.25 in.

9.(Original) The connector of claim 7 wherein the thermoplastic elastomer has a durometer hardness rating of about Shore A 20 to about Shore A 40.

10.(Original) The connector of claim 8 wherein the thermoplastic elastomer has a thickness of about 0.06 inch.

11.(Original) The connector of claim 8 wherein the distance between centers of the holes is between about 1.16 in. and about 1.29 in.

12.(Original) The connector of claim 8 wherein a distance between the centers of the holes is about 1.23 in.

13.(Original) The connector of claim 8 wherein the diameter of the hole is about 0.187 in.

14.(Original) The connector of claim 8 wherein the slit has a width of about 0.03 in.

15.(Original) The connector of claim 7 and further comprising: a finger grip for pulling the slot open.

16.(Original) The connector of claim 15 wherein the finger grip is comprised of the thermoplastic elastomer.

17.(Original) The connector of claim 15 wherein a base of the finger grip has a diameter of about 0.13 in and a height of the finger grip is about 0.44.

18.(Currently amended) A vest to apply pneumatic pressure delivered by a hose to a chest of a patient, the vest comprising:

a flexible belt having a generally flat configuration including an inflatable bladder, the bladder having a generally flat configuration when deflated; and

a connector for connection between an the inflatable bladder and a the hose, the connector comprising: comprising an elastic sheet forming a portion of a wall of the inflatable bladder, the elastic sheet having a durometer hardness rating and a thickness; and a first slot within the sheet that extends in a direction generally perpendicular to a longitudinal dimension of the belt, the slot having dimensions dependent on the durometer hardness and thickness of the sheet and form an airtight seal around an outer surface of the hose, the elastic sheet having a generally flat configuration along a plane defined by the belt prior to insertion of the hose through the slot, and the elastic sheet being deformable to allow the hose to be inserted through the slot in a direction generally parallel to the plane defined by the belt and generally perpendicular to a longitudinal dimension of the slot sheet in the flat configuration.

19.(Original) The connector of claim 18 wherein the hardness of the sheet and thickness of the sheet have an inverse relationship.

20.(Original) The connector of claim 19 wherein the slot further comprises: holes for increasing a range of hardnesses and a range of thicknesses tolerated by the inverse relationship.

21.(Previously presented) A pneumatic chest compression vest comprising:
a front panel with an inner and outer surface;
an air bladder on the inner surface;
a belt connected to the front panel for securing the vest;
a connector for connecting the air bladder to a hose, the connector further comprising: an elastic sheet forming a portion of a wall of the inflatable bladder; and a first slot

within the sheet dimensioned to form an airtight seal around an outer surface of the hose when the hose is inserted through the slot in a direction generally parallel to the sheet; and

an indicator for indicating prior use of the vest and tampering with the vest.

22.(Original) The vest of claim 21 wherein the connector further comprises: a second slot.

23.(Original) The vest of claim 21 wherein the vest is flat for efficient packaging and stacking for storage.

24.(Original) The vest of claim 21 and further comprising: a hose tie.

25.(Original) The vest of claim 24 wherein the hose tie positions and secures the hose generally parallel to the sheet.

26.(Previously presented) The vest of claim 21 wherein the indicator comprises a cover over the slot.

27.(Previously presented) A pneumatic chest compression vest comprising:

a front panel with an inner and outer surface;

an air bladder on the inner surface;

a belt connected to the front panel for securing the vest; and

a connector to connect the air bladder to a hose, the connector being comprised of a thermoplastic elastomer having a durometer hardness rating that provides limited durability of the connector, a slot within the thermoplastic elastomer dimensioned to form an airtight seal between the inflatable bladder and the hose, the slot further comprising: a slit; holes at ends of the slit for easy insertion of the hose into the slot; tabs at the intersection of the slit and the holes; and wherein no leakage occurs around the holes, because the holes have a diameter that allows the tabs to recede when the slot is stretched open; and

an indicator for indicating prior use of the vest and tampering with the vest.

28.(Original) The vest of claim 27 and further comprising: a second slot in the connector to receive a hose.

29.(Original) The vest of claim 27 wherein hose connects to the connector at an angle that is less than perpendicular to the front panel.

30.(Original) The vest of claim 27 wherein the vest is heat sterilizable.

31.(Original) The vest of claim 27 wherein the vest is flat for more efficient packaging and storage.

32.(Original) The vest of claim 27 and further comprising: a hose tie for securing the hose to the vest.

33.(Previously presented) The vest of claim 27 wherein the indicator comprises a cover over the slot.

34.(Original) The vest of claim 27 wherein the vest can be worn by a user while being x-rayed.

35.(Currently amended) A chest wall oscillation system comprising:
an air pulse generator ~~for supplying oscillating air pulses;~~
a hose ~~connected to the air pulse generator for transferring the air pulses;~~ and
a chest compression vest ~~connected to the hose, the vest receiving the air pulses~~
~~and applying an oscillating force to a chest region of a patient;~~ comprising:
a flexible belt including an inflatable bladder; and
a connector for connecting the hose to the ~~vest~~ inflatable bladder, the connector ~~further comprising:~~ comprising an elastic sheet forming a portion of a wall of the inflatable bladder; and a first slot within the sheet that extends in a direction generally perpendicular to a longitudinal dimension of the belt and that is dimensioned to form an airtight seal around an outer surface of the hose, the elastic sheet having a generally flat configuration along a plane defined by the belt prior to insertion of the hose through the slot, and the elastic sheet being deformable to allow the hose to be inserted through the slot in a direction generally parallel to the plane defined by the belt and generally perpendicular to a longitudinal dimension of the slot sheet in the flat configuration.

36.(Currently amended) A chest wall oscillation system comprising:
an air pulse generator ~~for supplying oscillating air pulses;~~
a hose ~~connected to the air pulse generator for transferring the air pulses;~~ and
a chest compression vest ~~connected to the hose, the vest receiving the air pulses~~
~~and applying an oscillating force to a chest region of a patient;~~ comprising:
a flexible belt including an inflatable bladder coupled to the belt; and
a connector for connecting the hose to the ~~vest~~ inflatable bladder, the connector ~~being comprised of~~ comprising a thermoplastic elastomer sheet having a durometer hardness rating that provides limited durability of the connector, a slot within the thermoplastic elastomer sheet that extends in a direction generally perpendicular to a longitudinal dimension of the belt

and that is dimensioned to form an airtight seal between the ~~vest~~ inflatable bladder and the hose,
the slot further comprising: a slit; holes at ends of the slit for easy insertion of the hose into the
slot; tabs at the intersection of the slit and the holes; and wherein no leakage occurs around the
holes, because the holes have a diameter that allows the tabs to recede when the slot is stretched
open by the hose; the thermoplastic elastomer sheet having a generally flat configuration along a
plane defined by the belt prior to insertion of the hose through the slot, and the thermoplastic
elastomer sheet being deformable to allow the hose to be inserted through the slot in a direction
generally parallel to the plane defined by the belt and generally perpendicular to a longitudinal
dimension of the slot ~~thermoplastic elastomer sheet in the flat configuration.~~

37.(Original) The chest wall oscillation system of claim 36 wherein the hose
connects to the connector at an angle that is less than perpendicular to the patient's chest such
that the air pulses travel in a direction that is generally parallel to the chest region of the patient.

38.(Canceled)

39.(Previously presented) A method of connecting a hose to an inflatable
bladder, the method comprising:

stretching open a slot within an elastic sheet that forms a portion of a wall of the
inflatable bladder by pulling a finger grip to stretch open the slot; and

inserting the hose into the slot that is dimensioned such that an airtight seal forms
around an outer surface of the hose when the hose is inserted through the slot in a direction
generally parallel to the sheet.

40.(Previously presented) The method of claim 39 and further comprising:
securing the hose with hose ties.

41.(Original) The method of claim 39 and further comprising: supplying
oscillating air pulses to the hose.

42.(Original) The method of claim 41 and further comprising: positioning the
inflatable bladder on a chest of a patient; and applying high frequency chest wall oscillations to
the patient.

43.(Previously presented) A vest to apply pneumatic pressure delivered by a
hose to a chest of a patient, the vest comprising:

a belt;

an air bladder coupled to the belt;

a connector for connecting the air bladder to the hose, the connector comprising an elastic sheet forming a portion of a wall of the inflatable bladder, the elastic sheet having a first slot sized to receive the hose therein; and

an indicator covering the slot, the indicator indicating whether prior use of the vest has occurred.